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# MARKETING LIVE STOCK IN THE SOUTH

## SUGGESTIONS FOR IMPROVEMENT

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**T**HE outlet for southern farmers' live stock lies chiefly with local butchers and shippers, and therefore is limited and often unsatisfactory. Not uncommonly farmers slaughter their animals without previously arranging for the sale of the dressed carcasses and, because of the perishable nature of their product, are forced to sacrifice it on an over-supplied market.

Local packing houses have benefited farmers accessible to them by providing a year-round market. Co-operative shipping and marketing clubs, local live stock buying companies, and the establishment of specified market points, with sales on advertised dates, also have improved marketing conditions greatly.

Many farmers market their hogs as cured meats, which are sold to dealers or to consumers. In preparing farm-cured meats in the South, artificial refrigeration is desirable. This may be provided by individual or community meat-curing houses. Some local ice and cold-storage plants cure meats for farmers; others purchase the dressed hogs and cure on their own account. Ice plants might extend this business.

These local marketing plans have proved successful in various communities and have increased the number of live stock produced. They are therefore offered in this bulletin as suggested remedies to communities with inadequate markets.

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## NEED OF BETTER LOCAL MARKETS FOR LIVE STOCK.

**F**REQUENTLY the statement is made that the live-stock problem of the South is more essentially one of production than of marketing; in other words, that the live-stock markets and transportation facilities will not be improved materially until the South raises stock in sufficient numbers to attract buyers and to warrant the expenditure of capital for equipment and service. Nevertheless, the lack of a ready market and the unsatisfactory prices received by the small farmer undoubtedly have helped to retard the development of the live-stock industry in many sections of the South.

Since it is largely to the small farmers that the South must look for the desired increase in live-stock production, it is essential to offer them encouragement in the way of better marketing facilities. This can be done by establishing local markets of such a nature that the farmer will be assured of an opportunity to dispose of his stock at a fair market price.

## LOCAL MARKETS AND METHODS OF MARKETING COMMONLY FOLLOWED.

Under present conditions in the South a large part of the live stock is sold by farmers to local butchers for retail trade, and to local dealer-shippers for shipment to market.<sup>1</sup> In the nine Southeastern

<sup>1</sup> U. S. Department of Agriculture, Office of the Secretary, Report No. 113, Meat situation in the United States, Part V, Methods and costs of marketing live stock and meats. 1916.

NOTE.—The purpose of this bulletin is to place before southern farmers who produce stock in small lots and who are experiencing difficulty in marketing their live stock the more important local marketing plans which have been found successful in certain communities and which are practicable under southern conditions.

States (Tennessee, North Carolina, South Carolina, Georgia, Florida, Louisiana, Mississippi, Alabama, and Arkansas) 47 per cent of the cattle marketed for meat purposes is sold to local butchers either on foot or as farm-dressed carcasses; 36 per cent is sold to local dealer-shippers for shipment to market; and 7 per cent is shipped by owners in car lots, the remaining 10 per cent being sold to local packers, to packers' agents for shipment, or for shipment to feeding points.

Calves are marketed largely to local butchers, the average from the nine States being 56 per cent, while 35 per cent is sold to local dealer-shippers. Sheep are marketed in a similar manner, 55 per cent being sold to local butchers and approximately 30 per cent to local dealers for shipment to market. Hogs also are marketed largely locally, 70 per cent being sold either on foot or as farm-dressed carcasses to local butchers for retail trade, and as farm-cured meats and sausage. Seventeen per cent is sold to local dealer-shippers for shipment to market and 7 per cent is shipped in carload lots by owners, the remainder being sold largely to local packers and to packers' agents for shipment.

A very common method of marketing employed by the small farmers is to slaughter the animals on the farm and sell the dressed carcasses to local retail dealers, or to consign them by express to commission men for sale in the larger cities. Approximately 6 per cent of the calves, 9 per cent of the cattle, 12 per cent of the sheep and lambs, and 16 per cent of the hogs of the ninth South-eastern States are marketed in this manner.

In many cases animals are killed and offered for sale regardless of market conditions. Frequently advantage is taken of cool weather to kill and dispose of hogs, with the result that the dressed carcasses must be sold on a glutted market, and, being a perishable product, must be disposed of at any price obtainable. An example, which is only one of many, was observed at a small town in Louisiana during the winter of 1915-16, where each time the weather became cooler 8 or 10 dressed hogs were offered for sale when there was a demand for but 1 or 2. Such a method is, of course, most unprofitable to the farmer. A number of instances have occurred in southern cities where dressed beef ordinarily valued at 7 to 8 cents a pound was sold by farmers for 3 to 4 cents, and dressed hogs valued under ordinary conditions at 8 to 10 cents a pound sold for 2 to 3 cents because of a temporary oversupply of fresh meats in these towns. The farmers could have avoided these losses by finding a market for their meat before slaughtering, by delaying slaughtering until market conditions were improved, or by selling the animals alive on a good market.

Even under normal market conditions the prices paid for dressed carcasses often are not in proportion to the quoted live-weight prices

of the animals. In Louisiana, instances were noted in the autumn of 1916 where farmers were being paid 8 cents per pound for dressed hogs when at the same date hogs of similar grade were quoted at 9 to 9½ cents per pound live weight on the Fort Worth market. Similar conditions are reported from other sections of the South. Considering, therefore, the prices ordinarily paid the farmer in the South for meat animals, live and dressed weight, together with the labor of killing and dressing and the uncertainty of the meat trade, farm animals in many cases may be sold to better advantage on foot than as dressed carcasses.

### LOCAL MARKETING OF STOCK ON FOOT.

The outlets usually available to farmers wishing to dispose of their meat animals on foot are the local dealer-shipper and the local retail butcher. But for farmers located near a packing plant the marketing problem is simplified, as a ready market is provided at all times and better prices than those paid by local dealers usually are obtainable. Such institutions should have all the support possible to help assure their success. Packing plants in the South have experienced difficulty in procuring live stock during the summer months, which has tended to hinder their progress. Farmers should consider the advisability of fitting their hogs for market during different seasons of the year.

Comparatively few farmers are situated near these packing plants. On the other hand, many farmers are located in the vicinity of small towns where the local demand for meats is very limited, and any surplus must be marketed elsewhere. These farmers are dependent upon local dealer-shippers for the sale of their live stock, inasmuch as no one farmer has sufficient stock of his own to make up a full carload for shipment to market. At some points there may be but one shipper, in which case the farmer is compelled to accept the prices offered, although they may be unsatisfactory, while in many communities no live-stock shippers are operating. Such conditions undoubtedly have been the means of retarding live-stock production in many parts of the South.

For the purpose of bettering market conditions for farmers so situated several plans for marketing live stock locally have been developed and found practicable. Such plans might well be adopted in many localities in the South where present marketing facilities are found to be inadequate.

### COOPERATIVE LIVE STOCK SHIPPING.

Of the various marketing plans under discussion, undoubtedly cooperative shipping is being most generally adopted in the United States. This is a method by which producers of live stock in less-

than-carload lots are enabled to ship their animals to centralized live-stock markets. Farmers taking advantage of this method of marketing receive prevailing market prices for their stock less the cost of marketing. They are independent of local buyers and save the profits realized by these buyers. Also by means of a sinking fund set aside for the purpose, farmers are reimbursed for animals killed or injured in transit. Associations for marketing live stock in this manner are simple in organization and no capital is required, inasmuch as it is entirely a consignment business and farmers are paid for their stock when returns from a shipment are received.

Cooperative live stock shipping associations<sup>1</sup> have met with marked success during the last few years in a number of the Middle Western States. The United States Department of Agriculture has a list of approximately 750 organizations in 15 States that are shipping stock in this manner, and the movement is extending rapidly. Minnesota, with a total of more than 200, leads in the number of these associations; and estimates by the crop and special live stock reporters of the Bureau of Crop Estimates of the United States Department of Agriculture indicate that approximately 25 per cent of the cattle and hogs and 15 per cent of the calves and sheep marketed from that State are shipped through these associations.

Cooperative live stock shipping is adapted to the needs of many communities in the South, particularly those which are situated within convenient shipping distances of large centralized live stock markets or packing houses, and which do not have adequate local markets. A few associations, primarily formed for shipping hogs, already have been organized in the South, and one of the results noted has been the adoption of better production methods in these localities. When it is known that there is a chance to ship hogs direct to a good market, where they will be sold on their merits, instead of selling them to local buyers at arbitrary prices, farmers usually are more inclined to give their hogs special care and not to allow them to run at random and feed on whatever they can find.

An instance of the need for some plan of marketing which will enable farmers with a few hogs to reach centralized markets was noted recently in Louisiana. A farmer who had 19 hogs to market was unable to dispose of them at near-by towns, since the local butchers were oversupplied with fresh meats, and the local shippers were indisposed to handle the hogs. Accordingly, the farmer purchased 17 hogs from a neighbor, loaded the 36 in a car and shipped them to market. Although it was a light car, the profit on the 17

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<sup>1</sup> Doty, S. W., and Hall, L. D., Cooperative live stock shipping associations, U. S. Department of Agriculture Farmers' Bulletin 718, 1916.

Humphrey, J. R., and Kerr, W. H., A system of accounts for live stock shipping associations, U. S. Department of Agriculture Bulletin 403, 1916.

head bought paid for the time spent in the transaction and all costs of making the shipment, including shrinkage on the original 19 head.

It is generally considered that conditions which will be favorable to the organization of associations for shipping stock cooperatively in the South must be developed gradually. Until live stock is produced in the South in sufficient quantities to warrant shipping organizations for the purpose, a very simple plan of cooperative shipping in which several farmers combine their stock to make up carload lots for shipment may be followed. Many associations in the North have resulted from such a plan and undoubtedly shipping associations in the South will be formed largely in this manner.

#### TENNESSEE LAMB AND WOOL MARKETING CLUBS.

Lamb and wool marketing clubs have been in successful operation in Tennessee for more than 25 years. They were the outcome of unsatisfactory marketing conditions in the lamb-producing sections of Tennessee. The plan originated at Goodlettsville, where there is a club with a membership of 50 persons living within a radius of 3 miles from the shipping stations, and its success has prompted farmers in other sections of Tennessee to organize in a similar manner.

The organization of these clubs is comparatively simple. The officers consist of a president and a secretary-treasurer, who, with three other members, form an executive committee, the chairman of which is the secretary-treasurer. The annual meeting for the election of officers is held early in the spring, that each member may report the number of lambs and the amount of wool that he will have to sell.

The secretary-treasurer advertises for sealed bids on the lambs owned by the club. The advertisement indicates the number, grade, and quality of the lambs and the date shipment will be made. The lambs are then sold at the shipping point to the highest bidder, the executive committee reserving the privilege of rejecting all bids in case they seem too low. On the shipping date the executive committee is on hand to grade the lambs brought in by each farmer. All lambs not up to the advertised standard are returned to the farmer, who either holds them over for some future shipment or sells them at a sacrifice. This has the beneficial influence of training the owners to deliver only those lambs which will come within the grades advertised by the committee.

The day for the wool sale is advertised, that bidders may be on hand to see the fleeces, which are graded into No. 1, clear; No. 2, slightly burry; No. 3, burry; and No. 4, hard burry. Each grade is weighed, and sealed bids are received by the committee, which also reserves the privilege of rejecting all bids.

The farmer who owns a small flock of ewes has the same advantage in marketing his lambs as the large producer. Expenses are



made proportionate and all receive the benefit of competitive bids. The results are seen principally in the better prices obtained. It is stated freely that the club members receive from \$1 to \$2 a hundred-weight more for lambs of the same grade and 2 cents per pound more for wool than farmers in the community who have not the benefit of cooperative selling. The members are encouraged to follow uniform methods in breeding and handling their flocks, with the result that the clubs have an established reputation in many of the large markets for the uniformity and high quality of their lambs and wool.

### A MISSISSIPPI COMMERCIAL CLUB'S MARKETING PLAN.

A "farmers' stockyards company" was organized at a city in Mississippi in 1912 by a committee of the board of trade. The company is capitalized at \$10,000, with \$2,500 paid in, this amount having been found sufficient to transact the business of the company. The company was organized primarily to provide the farmers of the surrounding country with a good local market for their live stock throughout the year, with the hope of increasing the production of live stock. The stockholders, who are local business men, receive no dividends, and it is their aim, while maintaining the capital stock unimpaired, to conduct the business so that the farmer will receive the maximum returns for his live stock. The operating expenses of the company therefore are reduced to a minimum. The manager receives \$15 for every carload of stock shipped by the company, and the secretary-treasurer a salary of \$150 per annum. The rental of the stockyards (an abandoned cotton-compress lot) is secured by charging 5 cents per head for all live stock taken into the yards. Other expenses are the wages of a caretaker and the city water charges.

The company buys live stock in any sized lots on two days of each week throughout the year, paying cash. The prices paid the farmer are those prevailing at the large centralized markets, such as East St. Louis and Fort Worth, minus a small margin to cover the usual marketing expenses. The latter include the operating expenses of the company; the cost of feed at shipping points and en route; freight; shrinkage; and the charges at the market, namely, insurance, yardage, feed, commission, and dockages.

An immediate result as reported by the secretary of the organization has been shown in the higher prices paid by local butchers for all live stock offered and in their readiness to pay cash for purchases, whereas previously it was not uncommon to demand credit extensions from the farmers. On the other hand, since the work of the company has demonstrated the fact that live stock can be bought and shipped to centralized northern and southern markets, local

dealers have started operations in the vicinity, which have curtailed the business of the stock yards company. An extended interest in live-stock production by farmers in the surrounding country has been noted.

### CATTLE SALES OF SOUTH CAROLINA.

The extension department of Clemson Agricultural College, South Carolina, cooperating with the United States Department of Agriculture, has instituted a plan for marketing cattle which has been followed two years and has proved sufficiently successful to warrant its continuance. The plan is a direct outgrowth of a movement to increase the production and fattening of cattle in the State. At the outset the main purpose of the work was to interest small farmers in raising and feeding cattle, and by improving feeding methods to show them the advantages to be derived from putting their stock in marketable condition. With this object in view a number of farmers in various sections of the State were induced to feed from two to five head of cattle under the direction of live-stock specialists employed jointly by the extension department of the college and the United States Department of Agriculture. At this juncture the question of marketing these cattle arose. The local markets at this time, in many sections of the State, were found to be unsatisfactory, and therefore very little encouragement was offered the farmers to increase or improve their live stock. To overcome these difficulties the following plan was outlined: Three places which would be accessible to the farmers feeding cattle were designated, and a market day was arranged for each place. On the days set for the sales the cattle were assembled at these points, and by previous arrangement buyers from several of the northern markets were present to bid on the cattle. The sales were conducted on the private-sale plan rather than as auctions. The results were satisfactory from the standpoint of both buyer and seller, the cattle netting from one-half to 1 cent a pound more than local buyers were offering.

Aside from the benefits derived from the market itself, the educational feature of having these sales at home was of no little value to the farmers. It enabled them to study the grades under which cattle are sold and to see the reason one lot of cattle brought a higher price than another. Cooperation on the part of the railroads in offering better shipping facilities has added to the success of the sales. Expert cattle salesmen were obtained to conduct the sales the second year, which added to their success.

The extent to which this plan is practicable for other parts of the South will be determined wholly by local conditions. It is thought by many who are familiar with southern conditions that until the live-stock industry is well established in the South a

marketing plan of this kind is more adaptable to some sections than cooperative shipping.

### MARKETING FARM-CURED MEATS.

Experience has shown that it is practicable for the average southern farmer to cure the pork needed for home use. The possibility of marketing hogs in the form of cured meats also is worthy of consideration. Local conditions will determine the extent to which this may be practiced. It depends largely on the opportunity open to the farmer to dispose of his hogs, alive or as dressed carcasses, at satisfactory prices to local shippers or butchers or otherwise.

In many communities the only market for the farmer with a small number of hogs is the local retail butcher, and ordinarily he is oversupplied with dressed hogs and other fresh meats during the winter months. Under such conditions curing meat on farms for market may be practiced profitably, as the meat can be held until prices are favorable. Farmers in many localities are employing this method successfully, notably in Brooks County, Ga., where it has been an important feature of the farming operations for 25 years. A ready local market is provided in the South for farm-cured meats that are handled properly and correctly trimmed and cured. The meat may be sold to wholesale grocers and local retail butchers or to private customers. In the latter case, shipments consisting largely of hams, bacon, and sausage may be made by parcel post or express.

It is not intended to discuss in this bulletin the methods of curing meat. This work demands careful attention on the part of the farmer, especially when he does not have refrigeration. A great deal of meat has been lost during the curing process because of weather conditions. However, if the following important preliminaries are observed, and the rules for curing followed carefully, the amount of spoiled meat may be reduced to a minimum:

1. Be certain that the animal is healthy and in good condition.
2. Keep hogs off feed and with plenty of accessible water for 24 hours previous to killing.
3. Be sure the animal does not become heated previous to slaughter.
4. Be sure the carcass is chilled thoroughly or cooled out before the meat is cut up to be put into cure.
5. Cut all pieces uniformly and trim all ragged edges carefully. A ham or piece of bacon which is attractively shaped is more salable than one which is not.

Because of climatic conditions in the Southern States, particularly the Gulf States, some form of artificial refrigeration will aid and safeguard the curing process. This may be supplied by a private meat-curing house on the farm or by a community meat-curing house or by taking the meat to a local ice plant to be cured.

In a test conducted in a small meat-curing house in southern Georgia, it was estimated that the cost of curing the meat was not

more than three-fourths of a cent a pound, including the cost of the ice. This house, which is 9 by 9 feet in size, has been found to be sufficiently large for the average farmer. Meat houses, varying in size from 6 by 8 feet to as large as 16 by 30 feet, recently have been built and operated successfully by at least 10 farmers in southern Georgia, and it is predicted that many more of these houses will be built in the near future by farmers in this section.

#### THE SOUTHERN ICE PLANT AS A LOCAL MARKET.

The curing and handling of pork products opens an extensive field to ice plants throughout the South. For several years the managers of a few plants have cured meat for farmers at a specified price per pound. A more recent development of the business, however, has been the purchase of dressed hogs from farmers by the ice-plant management. This plan was inaugurated at Canton, Miss., during the winter of 1913-14, where it since has become an important feature of the ice company's business.

Information obtained from the managers of ice plants who have had experience in curing meat for farmers indicates that the plan has been profitable to the ice-plant owners and of considerable service to farmers in the respective communities.

One ice company which cures meat for farmers charges 1 cent per pound for curing, 2 cents for curing and smoking, and 3 cents for curing, smoking, and wrapping. These charges include all labor, salt, and other material, and are based on green weight of meat. The farmer delivers the meat to the plant cut into desired pieces for curing. The management reports that approximately 30 tons of meat were cured at this plant during the winter of 1913-14, 55 tons during the winter of 1914-15, and approximately 120 tons during 1915-16.

Fourteen plants in Georgia and one in Mississippi are reported to be conducting the business after this plan. While no figures are available to show the actual cost of curing meats, reports of managers who have conducted the business indicate that a charge of 1 to 2 cents a pound, depending upon the local conditions and the amount of meat in cure, will return a reasonable profit to the plant and at the same time be fair to the farmer.

Where the owners of ice plants make a business of buying the hogs and selling the cured products, dressed hogs are purchased from the farmer. The meat is handled in about the same way as at the smaller packing plants, and the cured meat and other products are sold locally. The management of one ice plant which has conducted this business for several seasons reports that the number of hogs produced in the community has been practically doubled during this period. This increase is attributed largely to the market which the ice plant has provided. The buying records of this plant for the

winter of 1914-15 show that the hogs delivered to the plant average three for each patron. These facts show that the local market for hogs thus provided by ice plants is of particular value to the small farmer. He receives more for his hogs than he otherwise would, a fair profit is made at the ice plant, and a good home product is offered the consumers at a reasonable price.

During the winter of 1914-15 the practice of purchasing hogs from farmers was taken up at three plants in Arkansas, and, under the supervision of a representative of the Department of Agriculture, it was extended to 10 ice or cold storage plants in that State during the winter of 1915-16. As a result of the work in Arkansas, at least one ice company in Louisiana and two in Mississippi are now buying dressed hogs from the farmers.

Not only does this business furnish the farmer a steady and substantial market for his hogs during the winter months, but it makes it possible for the owners of ice plants to utilize their equipment and storage rooms as a source of revenue during a period when the ice business is dull. It is not likely that a very large number of hogs will be handled by any one ice plant. However, this outlet offers encouragement to farmers who are starting in the business of raising hogs and gives them a market for their surplus while production is being increased and other markets or packing-house centers are being established.

#### **MUNICIPAL OR PUBLIC ABATTOIR AS AN AID IN THE LOCAL MARKETING OF LIVE STOCK.**

Centralized slaughtering at abattoirs either municipally owned or privately owned and operated under city inspection is increasing each year throughout the country. Investigations by the United States Department of Agriculture indicate that at least 22 cities in 13 States now have such plants, the greater number of which are located in the South. Five of the 7 cities which own abattoirs and 12 of the 15 which have privately owned public abattoirs are southern cities.

The main purposes in establishing these abattoirs are to enable municipalities to carry out effectively a thorough system of inspection, to overcome insanitary conditions, and to provide refrigeration facilities for locally slaughtered meats. But many features in connection with institutions of this kind are of interest from the standpoint of marketing. Principal among these are the utilization of offal, practically all of which is wasted in the old type of local slaughterhouse, the lessening of the percentage of cut hides, and the better appearance of dressed carcasses because of improved facilities and more careful handling. The local demand for home-grown meats, particularly beef, has increased in several instances with the advent

of the public abattoir. This has tended toward improving the local market for live stock from the surrounding territory.

The charges for slaughtering vary somewhat in the different cities, depending largely on the services rendered and the distribution of offal. The more common rates are \$1.25 per head for cattle and 75 cents per head for hogs, sheep, calves, and goats. This includes slaughter, two inspections, five days' cold storage, and delivery to any part of the city.

Farmers located near a city or town which has a public abattoir and at which there is a local ice plant, where meat may be cured, are excellently situated to market their hogs as cured meats. Meat can be chilled thoroughly at the abattoir, and if then cured at the ice plant, danger of spoiling during the curing process practically is eliminated.

The municipal abattoir, although a comparatively new undertaking in this country, may be considered a factor in the development and extension of local markets for live stock. It is not without its limitations, however, principal among which are the competition with local butchers and the difficulty of obtaining competent management.

#### MEETING MARKET DEMANDS.

It is of the utmost importance that the producer of live stock should understand fully the requirements of the market before offering his product for sale. This is true especially of the southern hog producer. So-called "soft pork" is produced in the Southern States because the hogs are fattened on peanuts or similar feeds. The result is that not only the large packers at centralized markets, but many of the smaller packers in Southern States, discriminate against southern hogs, a margin of  $1\frac{1}{2}$  to 2 cents per pound in favor of corn-fed as compared with peanut-fed hogs being offered at most markets. As a rule, the large packers buy southern hogs either with a guarantee to "kill out hard" or outright at lower prices. Numerous instances were recorded during the winter season of 1915-16 in which farmers had difficulty in disposing of their hogs, owing to the limited demand of local retail dealers and to the fact that local shippers who furnished the only other outlet would not venture to buy hogs on account of the discrimination against southern hogs at the centralized markets. It is evident, therefore, that farmers who are dependent for the sale of their hogs upon markets of this kind are at a disadvantage unless they produce hogs that will "kill out hard."

Experiments conducted at the Alabama Experiment Station indicate that peanuts, soy beans, or other grazing crops are an essential factor in the most economical production of pork. Such feeds, however, particularly peanuts, when fed alone, produce a soft pork, which is objectionable to the butcher and packer, as well as for home

consumption. The experiments indicate also that a soft pork can be hardened very materially if the grazing crops are supplemented by a small amount of corn (2 pounds per hundredweight live weight), and then for a period of three or four weeks before slaughtering the hogs are finished on a full feed of grain (about 4 per cent of live weight, or 1 pound of grain to 25 pounds live weight of hog) and cottonseed meal in proportions of about 4 pounds of grain to 1 of cottonseed meal. Concerning the finishing period of peanut-fed hogs, the following is quoted from Bulletin 154 of the Alabama Agricultural Experiment Station:<sup>1</sup>

Cottonseed meal has proved to be an excellent supplement to corn, to be used in the short finishing period. It is good for two reasons—first, the gains are made economically when it is used; and, second, the lard and meat are hardened much more rapidly when cottonseed meal is used along with the corn than when corn is used alone. Corn and cottonseed meal harden the lard and meat more rapidly than does a mixture of corn and tankage. Cottonseed meal, when fed for long periods of time, is a dangerous feed. However, there is no danger of ill results when the cottonseed meal is used for no more than 28 days. If the hogs must be kept in the finishing period for more than 25 to 28 days, the cottonseed meal part of the feed should be eliminated; from this time on the ration should consist of corn alone, corn and shorts, or corn and tankage.

While rapid progress is being made in the improvement of southern hogs, they do not as yet, generally speaking, dress out as high a percentage as do corn-belt hogs, largely because of the type of hog and the feeding methods practiced. Data relative to this were obtained from packing houses operating in the Southern States. At one plant which slaughtered 6,039 hogs during the months of March, April, May, and June, 1916, the average live weight was 150.8, while the dressed weight was 101.7 pounds, the average dressing percentage being 67.1. Practically all of these hogs were weighed off the cars, with no "fill," and therefore dressed out a higher percentage than if they had been purchased at stock yards and had received a heavy "fill." At another plant tests on 2,640 Tennessee hogs, averaging 140 pounds live weight, showed the dressing percentage to be 71.3, and on 685 Georgia hogs averaging 126 pounds live weight the dressing percentage was 70.1.

In proportion to live-weight prices, the prices for dressed beef and pork necessary to make the same returns to the farmer are not so high as they may appear. For example, a 600-pound cow worth 6 cents a pound on foot would bring \$36. The hide weighs about 45 pounds and sells at, say, 20 cents a pound, or \$9. Such an animal will dress out about 45 per cent, or a 270-pound carcass. Thus, to give the same return as the live cow at 6 cents a pound the carcass would have to bring \$36 less \$9, which is \$27, or 10 cents a pound.

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<sup>1</sup> Gray, D. T., Ridgway, J. W., and Eudaly, E. R., Corn, soy-bean pastures, tankage, and cottonseed meal for fattening hogs. Alabama Agricultural Experiment Station Bulletin 154, 1911.

Likewise well-fattened hogs (hogs sufficiently fat to dress out 75 per cent carcass when killed) must sell for 8 cents a pound dressed weight to net the same as the live hog at 6 cents a pound. This difference between live and dressed weight prices diminishes with the increase in the dressing percentage of the animal, as indicated in Table I, which shows live-weight prices and the corresponding dressed-weight prices per hundredweight that are necessary to net the same returns for hogs of different dressing percentages. In this discussion it is considered that the offal would balance the cost of slaughter.

TABLE I.—*Comparison of live-weight price with dressed-weight price necessary to net the same returns from hogs.*

[Prices per hundredweight.]

Live-weight price.	Dressed-weight price necessary to net same return for carcasses dressing various percentages.				
	65 per cent.	70 per cent.	75 per cent.	80 per cent.	85 per cent.
\$4.00	\$6.15	\$5.71	\$5.33	\$5.00	\$4.70
4.50	6.92	6.43	6.00	5.63	5.29
5.00	7.69	7.14	6.67	6.25	5.88
5.50	8.46	7.86	7.33	6.88	6.47
6.00	9.23	8.57	8.00	7.50	7.06
6.50	10.00	9.29	8.67	8.13	7.65
7.00	10.77	10.00	9.33	8.75	8.23
7.50	11.54	10.71	10.00	9.38	8.82
8.00	12.31	11.43	10.67	10.00	9.41
8.50	13.08	12.14	11.33	10.63	10.00
9.00	13.85	12.86	12.00	11.25	10.59
9.50	14.62	13.57	12.67	11.88	11.18
10.00	15.38	14.29	13.33	12.50	11.76

A large majority of southern hogs are marketed during the winter months. Prices are lowest during this period, largely because of heavy receipts at markets in all parts of the country. A study of receipts and prices at the leading live-stock markets shows that in the five-year period, 1910-1914, the average price for live hogs was highest during the months of March, April, August, and September, and that the receipts during these months were lowest. An advantage in price, therefore, is to be gained usually by marketing hogs during these months. Although it is not practicable for some farmers to change their production methods to take advantage of this fact, undoubtedly there are many, particularly farmers who are accessible to packing houses in the South, who could well afford to arrange to have their hogs in marketable condition during these months. A more uniform distribution of market hogs throughout the year in the Southern States would benefit many farmers and at the same time assist greatly in the development of the packing industry in the South.



Elimination of the cattle tick<sup>1</sup> is essential to the most profitable marketing of southern cattle, as well as to their most economical production. Aside from its effect on the condition and appearance of the animal, the tick materially reduces the value of the hide. Cattle shipped to market from areas not free from the tick must go to the quarantine pens, unless accompanied by a Federal certificate of dipping before shipment. Not uncommonly it is found that such cattle are discriminated against to the extent of 40 to 50 cents a hundredweight in comparison with other cattle of equal quality outside of the quarantine district.

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<sup>1</sup> Mohler, John R., Texas or tick fever, U. S. Department of Agriculture, Farmers' Bulletin 569, 1914.

Ward, W. F., Effects of cattle tick eradication on the cattle industry of the South, U. S. Department of Agriculture, Bureau of Animal Industry, 1914.

